Idaho Naturalist news

VOLUME 4 ISSUE 4 OCTOBER 15, 2012

Swan Year

Cathy Dufault, Henry's Fork Master Naturalist

The Henry's Fork Chapter of the Idaho Master Naturalist Program (IMNP) provided some "citizen science" volunteer time during the summer of 2012 by helping The Trumpeter Swan Society (TTSS) in the Island Park, Idaho, area. We provided a team of "Swan Watchers" who checked on nesting pairs of trumpeter swans (*Cygnus buccinators*). This monitoring project was on Swan Lake and in Harriman State Park on Silver Lake. Volunteers had the great pleasure of watching three pairs of swans successfully hatch and raise their cygnets and of knowing that during September, 10 new young swans joined Idaho's vulnerable nesting swan population. The summer of 2012 was a successful year for trumpeter swans in the Island Park area of Idaho and in Montana's Centennial Valley. But sadly that is not the case for other areas in Idaho further south where the swans have nested more successfully in past years. Nests in wetlands south of the Sand Creek Management Area had very low cygnet production while nests from Sand Creek north into Island Park did very well. Low water was a problem at several of the territories that failed.

A family of nine! Two adults, seven cygnets.
Photo by Linda Lostutter, Henry's Fork Master Naturalist

INSIDE THIS ISSUE:

The Idaho Naturalist News is a quarterly newsletter of the Idaho Master Naturalist Program.

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From what we know about trumpeter swans, we expect the Island Park area birds will be back to nest again next summer. Pairs usually return to the same nesting lake, and often to the same exact nest location, year after year. When the birds return they will again need that same good wetland habitat to successfully reproduce. Adequate water and low human disturbance are crucial to their success. If this year's cygnets survive the winter and return next year when they are yearlings, we may be able to recognize them because their necks will still have some grey feathers, although most of their body will be white like an adult. It takes four or five years for young swans to reach breeding age. To replace themselves during their breeding life span that averages about 10 years, each breeding pair needs to produce on the average about one cygnet per year.

Weather conditions strongly impact nesting, and cygnet production is highly variable. If each pair can fledge just three to four small broods over a decade, the nesting population can remain secure.

Trumpeter swans are native North American waterfowl that weigh between 20 and 30 pounds and have a wingspan of six to eight feet as adults. They feed primarily on submerged aquatic vegetation. During the summer months the adults go through a period when they molt or shed their feathers which makes them flightless for about six weeks. Trumpeter swans are characterized by their trumpet-like call. They nest in wetland areas that have plant growth such as cattails for good nest sites. They usually lay between four and six eggs which hatch after about five weeks. In Harriman State Park on Silver Lake during the summer of 2012, a uniquely successful pair of trumpeter swans hatched and fledged a brood of seven cygnets. This is the first brood of seven that has ever been documented to be fledged successfully in Idaho (photo on front of newsletter).

While the summer of 2012 was a trumpeter swan success story, that has not been the case throughout the past century and is not the case in areas adjacent to Island Park which could be suitable for these large, native and beautiful creatures. Before 1900 trumpeter swans were hunted to near extinction for their feathers and meat. There were less than 100 birds that survived in the Greater Yellowstone regions with a few small flocks also persisting in remote parts of Alaska and western Canada. The trumpeters were saved by conservation efforts that began in the 1930s. Their populations were restored through the help of many private citizens working with TTSS in partnership with agencies and without the provisions of the Endangered Species Act.

Efforts to help swans include:
-collecting accurate information
-assembling information on the trumpeter swans and making it available to the public
-helping interested landowners improve habitat
-focusing attention on public wetlands and needed restoration
-coordinate monitoring of nest sites to seek ways to prevent damage to them

Thank you to Elizabeth Laden-Losch for her life-long commitment to all elements of Island Park culture, Ruth Shea, Linda Lostutter and Mary Van Fleet for all of your enthusiasm about this volunteer effort.

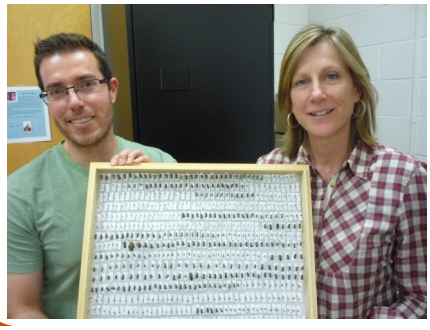
Master Naturalists Help Research Endemic Plant

Justin Fulkerson, Research Wildlife Biologist/Botanist, IDFG

Discovered in 1980 by Dr. Patricia Packard, *Astragalus cusickii* var. *packardiae* (Packard's milkvetch) is an endemic plant restricted to four square miles in Payette County, Idaho. This plant is considered to be one of the rarest plants in the state. Five populations with several subpopulations of Packard's milkvetch have been discovered occurring mostly on lands managed by the Bureau of Land Management. The plant appears to be restricted to highly fragmented bare white clay soil outcrops on slopes within foothills covered by shrub steppe that has been converted to non-native annual grassland.

Ecological disturbances of the habitat may potentially affect the plant populations. There has been documented extensive off-highway vehicle (OHV) use in the area and within many of the plant's populations. Additionally, livestock graze within the area and invasive weeds are slowly encroaching the bare soil outcrops. Fire frequency has increased due to the invasion of non-native annual grasses.

Not much is known about the plant other than what has been discovered recently in monitoring efforts. This past summer, Botanists at the Idaho Natural Heritage Program (IDFG), with the help from several Master Naturalists, studied the reproductive ecology of Packard's milkvetch. The main objectives were to determine if *pollinators* were required for seed production and to identify as many of the pollinators as possible. Master Naturalists helped Heritage Program botanists in the field by collecting insect pollinators, setting out bee bowl traps, and video recording pollinator activity. In the lab, Master Naturalists helped by watching the pollinator videos and recording when the insects visited the flowers, and by pinning specimens that were then identified by experts. Over 200 insect specimens were collected from the flowers and over 1700 bee specimens were collected from the bee bowls. Thanks to the efforts of Master Naturalists, our knowledge of the natural history of Packard's milkvetch has vastly increased-we now know that the main pollinators of Packard's milkvetch are *Osmia* bee species. They are solitary bees in the Megachilidae family, also known as the mason bee or the leaf cutter bee family. Additionally, the bee collection will contribute to a nationwide bee population study. Sagebrush-steppe Master Naturalists Sue Birnbaum, Anna Taaffe, Dwight Allen, Susan Riley, Leslie Nichols, Jude Reppell, Devon Koyle, Louis Dewitt, and Bob Ellis all helped with this project.



Left: Justin Fulkerson and Master Naturalist Sue Birnbaum hold a case full of pinned bees from the milkvetch project. Right: Mason bees-the primary pollinator for the Packard's milkvetch.

Riverside Rangers

Sara Focht, Education Coordinator, MK Nature Center

Riverside Rangers is an annual program the MK Nature Center provides to Riverside Elementary School in Boise. This fall marked the best Riverside Rangers Program yet. Students in grades Kindergarten through third grade spend a half day along the beautiful Boise River learning about nature and enjoying the river, which flows next to their school and neighborhoods. This year, the kids learned about:

Blood sucking insects and other parasites
Crayfish
Dead Trees (snags) and the habitat they provide
Fungus
Bird sounds and
Watersheds

MK Nature Center staff extends a heartfelt *thank you* to six Sagebrush-steppe Master Naturalists who taught stations this year. Without them, the program could not have happened!

Kevin Laughlin not only is a Master Naturalist, but he is also a "master" teacher. He always enhances the station he teaches with additional creative tasks for the kids that incorporate all learning styles. Tim Merrick is a dedicated hydrologist with the USGS who takes time off work to teach kids about water any chance he gets. Sandy Sweet signs up for all of our teaching events and are we ever lucky. This year she took the fungus lesson plan and quickly turned around to teach the fungus lesson with enthusiasm. Joyce Harvey-Morgan and Claudia Klokke ran the snag station. This was a two-person job, with an introduction to birdhouses, snags, woodpeckers and owls, followed by a snag craft for the kids to take home. Ron Lopez was our photographer and captured this event beautifully!

MORRISON KNUDSEN
NATURE CENTER
BOISE, IDAHO

Upper left: Claudia Klokke. Left margin: Ron Lopez. Above left, Tim Merrick. Above, Joyce Harvey-Morgan. Thanks to all these Master Naturalists and Kevin Laughlin and Sandy Sweet for helping with Riverside Rangers 2012.

Paper Wasps

Justin Fulkerson, Research Wildlife Biologist/Botanist, IDFG

Paper wasps are native to North America and our area. They belong to the family Vespidae which also contains yellow jackets and hornets. Paper wasps belong to the genus *Polistes*. There are 17 species in North America and are quite common.

Most wasps in the Vespidae family have a caste system similar to honeybees with a queen, workers, and males, but a few species are solitary. The queen starts a colony by laying eggs and creating workers. As the name implies, the workers do the majority of the work while the queen is predominately laying eggs. The colonies in our region exist for a single season except for the queen, who overwinters.

Paper wasps prey on insects and other animals and even sometimes dead ones. One major food source is caterpillars which are chewed up and fed to their larvae. As far as their ecological role, they are pretty good for gardens and eat nuisance insects so they are good to keep around, though they have a bad rap for bothering people with stings (males don't sting).

Paper wasps are territorial and some commercial products of artificial nests are available to deter real wasps from colonizing a specified area.

We were only gone a week! Neighbors of an Idaho Master Naturalist near Sandpoint, Idaho found this paper wasp nest on their garage after being away for only one week.
Photo by Lori Getts, Pend Oreille Master Naturalist.

Paper wasps are typically poor pollinators, but some other wasps are excellent pollinators and sometimes the only pollinator vector. Wasps lack hairs on their body and cannot transport pollen effectively between flowers. Even though they are not great pollinators, paper wasps are often found on flowers eating pollen (pollen is a very rich protein source) or searching for potential insects for food.

TIME!

Sara Focht, Idaho Master Naturalist Program Coordinator, IDFG

It is time to enter your volunteer and training time on the online timesheets. Even if your chapter's "year" does not coincide with the calendar year, *my reporting does.* In January, I tally all the volunteer time for each chapter in the state and make that report known to my supervisors and I usually print the results in the spring newsletter. Entering your time helps you verify your certification hours, helps build support for the program and allows the agencies and organizations you volunteer for convert your volunteer time into *money* for Conservation projects. If you need help entering time, contact your chapter leader or Sara at sara.focht@idfg.idaho.gov

Harriman Native Plant Garden Gets Bigger and Better

Elizabeth Laden, Editor of the Island Park News

Editor's note: Elizabeth Laden (article author) passed away in September, 2012 after this article was submitted for the newsletter. She will be dearly missed by all the Henry's Fork Master Naturalists and the Island Park Community.

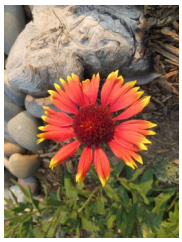
The Native Plants Garden Project at Harriman State Park, located near the park entrance and immediately east of the visitor center, broke ground in the spring of 2010. Volunteers completed a lot of work on the project this summer under the direction of Island Park resident Bren Dismuke, a member and past officer of the Henry's Fork Chapter of the Idaho Master Naturalists and an Idaho Master Gardener.

"The purpose of creating a Native Plants Garden is to highlight the natural beauty of our little spot in the world in Island Park and educate the public on the value of native plants," said Dismuke. "Every day many folks move around the caldera and beyond, perhaps frequently spotting a beautiful flower or interesting plant and may never know the plant's name in the event they want to grow it in their neck of the woods."

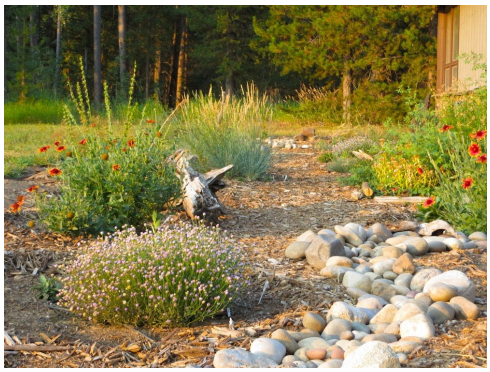
Native plants can save property owners money and time once they are established, she noted, because they have already developed the mechanisms necessary to survive in our sometimes-harsh environment. Many native plants are drought tolerant, and can thrive in mineral and nutrient depleted soils. For the homeowner that translates to fewer dollars spent on fertilizers, and native plants require less watering and nurturing.

"Of course, that is after they are established; early on native plants need some time and attention, mostly in the form of watering and removal of competing plants. But the big reason to give attention to the native plants is because they are beautiful and colorful and can enhance any space in our area," Dismuke said.
Future plans for the garden include creating labels to identify plants with their common names and scientific names, adding a plant map on the east wall of the visitor center and installing footpaths to picnic tables in shaded areas near the center.

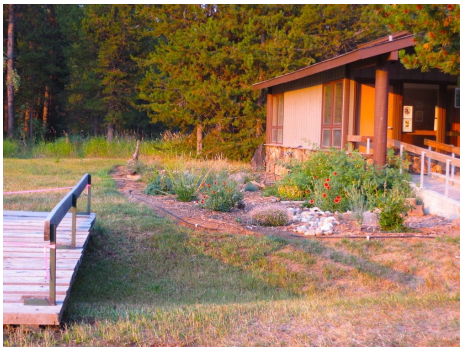
Funding is a major issue. All the manual labor is done by volunteers, the Idaho Master Naturalist Henry's Fork Chapter and the Idaho Master Gardeners, as well as assistance from the ISU Aberdeen Research Center. Funds are needed for the hardscape parts of the garden, footbridge completion and irrigation system expansion. Eventually, money will be needed for river rock, picnic tables, footpath materials and more.



"It is a lot of work and great fun to create something beautiful and educational for our community to enjoy. Please go visit the garden, get ideas to spruce up your home and if you see us working stop by and ask us about it. We love to show it off and share what we have learned," says Dismuke.



Upper left: Iliamna rivularis (Streambank globmallow or streambank wild hollyhock). Upper right: Gaillardia (blanket flower). Lower left and right: photos of the native garden. All photos by Bren Dismuke.



Fish Eggs to Fry

Lori Getts, Pend Oreille Master Naturalist

In the winter 2012 newsletter, you read an article about Kokanee in Lake Pend Oreille. Here's more of the story.....

Don Childress, Clem Yonker and Lori Getts, members of the Idaho Master Naturalists, Pend Oreille Chapter, are Citizen Scientist volunteers at the IDFG Cabinet Gorge Fish Hatchery. In November and December 2011, they went to Granite Creek on the east side of the lake to collect eggs from the three and four year old adult Kokanee migrating from the lake to the creek to spawn. Over the course of the spawn they and IDFG workers collected approximately *10 million eggs* from female Kokanee and fertilized the eggs with milt from captured males. The eggs were then transported to the Cabinet Gorge Fish Hatchery for incubation.

Water temperature is monitored and the eggs are sorted to separate the viable eggs from those that weren't fertilized and won't develop. This helps keep bacteria and disease from spreading. Once hatched and swimming, the fry are started on feed and raised until they are two inches in size. The Kokanee fry swim in runs made of concrete that have exposure to the outside as well as the inside of the hatchery building. Fresh water is constantly pumped through and never reused which also helps keep the runs clean and disease free. (See photo to the right.)

In June, the fry were netted and loaded onto tanker trucks (photos below), driven two hours overland and released into Sullivan Springs, a tributary of Granite Creek, on the east side of Lake Pend Oreille. According to John Rankin, the Manager of the Cabinet Gorge Fish Hatchery (pictured lower right corner), collecting the eggs and raising the fry in the protection of the fish hatchery gives them a much better chance of survival early on in life.

Visitors are welcome and more information is available at the hatchery web site: http://fishandgame.idaho.gov/public/fish/?getPage=89

Photos provided by Lori Getts, Pend Oreille Master Naturalist.

Idaho's Wildlife Summit

The Idaho Wildlife Summit, August 24-26, was truly a watershed event for wildlife conservation and public participation in Idaho.

Several hundred people participated directly, and 3,000 people from across the country and around the world watched and participated on-line.

Speakers with a diversity of perspectives talked about the history of the conservation movement in the United States, the changing wildlife values of the West and the importance of working together for conservation.

Participants discussed and responded to questions and issues raised by Summit speakers. The entire three-day event was recorded. As soon as it is organized into manageable sections, the speeches, videos and other materials will be posted online. Please check the website below and visit it for updates. A full Idaho Wildlife Summit report will be developed including Summit-generated ideas for continuing the conversation about Idaho's wildlife legacy.

Sagebrush-steppe Master Naturalist Ken Coleman joined many other Master Naturalists in Boise at the Wildlife Summit. At the satellite locations around the state, even more Master Naturalists joined in! Thanks to all of you who participated. The Idaho Master Naturalists were a target group of people the Department wanted to have at the Summit and you were well represented.

IDAHO FISH & GAME

IDAHO WILDLIFE SUMMIT

Idaho's Wildlife Belongs To You

http://fishandgame.idaho.gov/public/about/?getPage=320